

- Chamberlin, J.C. 1946. The genera and species of the Hyidae, a family of the arachnid order Chelonethida. *Bulletin of the University of Utah, Biological Series*, 37: 1-16.
- Harvey, M.S. 1992. The phylogeny and systematics of the Pseudoscorpionida (Chelicerata: Arachnida). *Invertebrate taxonomy*, 6: 1373-1435.
- Muchmore, W.B. 1998. Review of the family Bochicidae, with new species and records (Arachnida: Pseudoscorpionida). *Insecta Mundi*, 12: 117-132.

**Comments on the proposed conservation of the specific name of *Hybognathus stramineus* Cope, 1865 (currently *Notropis stramineus*; Osteichthyes, Cypriniformes) (Case 3131; see BZN 56: 240-246; 57: 111-112)**

(1) Carter R. Gilbert

*University of Florida, Gainesville, Florida, U.S.A.*

Edwin J. Crossman

*Royal Ontario Museum, Toronto, Ontario, Canada*

Hector Espinosa-Perez

*Universidad Nacional Autonoma de Mexico, Mexico City, D.F., Mexico*

Lloyd T. Findley

*CIAD-Unidad Guaymas, Guaymas, Sonora, Mexico*

Joseph S. Nelson

*University of Alberta, Alberta, Canada*

James D. Williams

*United States Geological Survey, Gainesville, Florida, U.S.A.*

Recently Prof Reeve Bailey submitted a well-documented application to the Commission, requesting conservation of the species name *stramineus* for the sand shiner (currently *Notropis stramineus* (Cope, 1865)), a common and relatively widespread cyprinid fish of eastern North America. The name for this species had earlier been changed by Mayden & Gilbert (1989) to *Notropis ludibundus* (Girard, 1856) on the basis of date priority. We have little factual information to add to the original petition, other than the following additional references that were not included but in which the species name *ludibundus* appears: O'Shea, Hubert & Anderson (1990); Frenzel & Swanson (1996); Gutzmer, King & Overhue (1996); Lynch & Roh (1996); Lyons (1996); Sullivan & Lydy (1999); Allenbach, Sullivan & Lydy (1999); Carlson, Daniels & Eaton (1999); and Fuller, Nico & Williams (1999, pp. 115-116).

We urge rejection of Prof Bailey's application for the following reasons, which are listed in descending order of perceived importance:

1. Bailey's statement (para. 7 of the application) that 'A few publications that appeared after 1989 have followed Mayden & C.R. Gilbert's recommended use of

*Notropis ludibundus*' implies limited use of this name in the literature. This statement is misleading. Bailey listed eight references in which *ludibundus* appears (to which may be added the nine listed immediately above), as compared to ten references during the same period in which *stramineus* was used. Thus, both names have appeared in the scientific literature during this period, with no clear predominance of one over the other.

2. As noted by Bailey in his application (para. 5), the sand shiner has had an unstable nomenclatural history during the 20th century, appearing under the following specific names during this period: *blennioides* until 1926, *deliciosus* until 1958, *stramineus* until 1989, and both *stramineus* and *ludibundus* thereafter. Thus, the longest period of time during this century in which any of these names was used has been 32 years.

3. To a large degree, use of the name *stramineus* after 1989 relates to continued appearance of this name in the 1991 publication *Common and scientific names of North American fishes* (Robins et al., p. 23). This was justified by the comment (p. 77): 'R.L. Mayden and C.R. Gilbert, 1989, *Copeia* (4): 1084, showed that this name is a junior synonym of *Cyprinella ludibunda* Girard, 1856 (= *Notropis ludibundus*). However, this name has been unused since its proposal. A petition has been submitted to the International Commission on Zoological Nomenclature to conserve the familiar name *stramineus*. Until a decision is rendered, existing usage is retained under Article 80 of the Code'. This was reflected in the following statement in Etnier & Starnes's (1993, p. 229) account of *Notropis stramineus*: 'An additional name change is pending, as Mayden and Gilbert (1989) indicated that *Cyprinella ludibunda* Girard, 1856, is an older available name for the same species. An appeal to conserve *Notropis stramineus* as the name for this species, in the interest of stability, has been submitted to the International Commission on Zoological Nomenclature (pers. comm. R.M. Bailey), and we maintain current usage until a decision is rendered by the Commission'. Despite these statements, the application was not submitted until June 1999, nearly ten years after resurrection of the name *ludibundus*.

4. The checklist by Robins et al. (1991), cited above, is a standard reference for common and scientific names of North American fishes, and taxonomic and nomenclatural decisions published therein are routinely followed by both professionals and non-professionals.

5. Although a common and relatively widespread species that is well known to specialists in North American freshwater fishes, the sand shiner in most respects is an obscure fish that is of little direct economic importance. The scientific name thus seldom appears in the non-scientific literature.

6. Bailey's application requests suppression of not one but two senior synonyms for this species (*ludibundus* and *lineolatus*).

7. The names for four species were changed, solely on the basis of date priority and without comment or presumed dissent, in the 1991 AFS-ASIH checklist (Robins et al., pp. 16–17, 50, 72–73, 90), as follows: *Percina vigil* (Hay, 1882) (vs. *Percina ouachitae* (Jordan & Gilbert, 1887)). (Suttkus, 1985); *Anarchias similis* (Lea, 1913) (vs. *Anarchias yoshiae* Kanazawa, 1952) (Böhlke, McCosker & Böhlke, 1989, p. 118); *Uropterygius macularius* (Lesueur, 1825) (vs. *Uropterygius diopus* Böhlke, 1967) (Böhlke, McCosker & Böhlke, 1989, p. 128); and *Myrichthys breviceps* (Richardson,

1845) (vs. *Myrichthys acuminatus* (Gronow, 1854)) (McCosker, Böhlke & Böhlke, 1989, pp. 374–375). The four examples cited are limited to species in which the senior synonyms had not previously been used and which were resurrected for the first time from the literature. It does not include examples for which the North American populations were found to be identical to widely ranging species with established older names.

8. Adoption of the name *hulibundus* does not signal widescale changes in species names among North American freshwater fishes, especially in view of the addition of Article 23.9 to the fourth edition of the Code. Analysis of four of the larger families of North American freshwater fishes (CYPRINIDAE, CATOSTOMIDAE, ICTALURIDAE and CENTRARCHIDAE), which total 442 Recent species (see Gilbert, 1998), shows that only one further name change could occur based strictly on priority. In the CYPRINIDAE, *Notropis phenacobius* Forbes, 1885 is a probable senior synonym of *Notropis amnis* Hubbs & Greene, 1951, but since no types of *N. phenacobius* remain and its identity cannot be categorically established, the older name has not been used (see Gilbert, 1978, pp. 69–70; 1998, pp. 29, 40, 132). The specific name *amnis* has been in consistent use and *phenacobius* is thus invalid under Article 23.9.

In conclusion, we feel that, based on the information presented above, conservation of the name *stramineus* for the sand shiner is not warranted.

#### Additional references

- Allenbach, D.M., Sullivan, K.B. & Lydy, M.J. 1999. Higher fluctuating asymmetry as a measure of susceptibility to pesticides in fishes. *Environmental Toxicology and Chemistry*, **18**(5): 899–905.
- Böhlke, E.B., McCosker, J.E. & Böhlke, J.E. 1989. Family Muraenidae. Pp. 104–206 in Böhlke, E.B. (Ed.), *Fishes of the Western North Atlantic*. *Sears Foundation for Marine Research*, **1**(9): 1–655.
- Carlson, D.M., Daniels, R.A. & Eaton, S.W. 1999. Status of fishes of the Allegheny River watershed of New York state. *Northeast Naturalist*, **6**(4): 305–326.
- Frenzel, S.A. & Swanson, R.B. 1996. Relations of fish community composition to environmental variables in streams of central Nebraska. *Environmental Management*, **20**(5): 689–705.
- Fuller, P.L., Nico, L.G. & Williams, J.D. 1999. Nonindigenous fishes introduced into inland waters of the United States. *American Fisheries Society, Special Publication*, **27**: 1–613.
- Gutzmer, M.P., King, J.W. & Overhue, D.P. 1996. Environmental impacts in the vicinity of Spencer Hydropower Dam during sluicing activities in the Niobrara River, Nebraska. *Transactions of the Nebraska Academy of Sciences*, **23**(4): 1–8.
- Lynch, J.D. & Roh, B.R. 1996. An ichthyological survey of the forks of the Platte River in western Nebraska. *Transactions of the Nebraska Academy of Sciences*, **23**: 65–84.
- Lyons, J. 1996. Patterns in the species composition of fish assemblages among Wisconsin streams. *Environmental Biology of Fishes*, **45**(4): 329–341.
- McCosker, J.E., Böhlke, E.B. & Böhlke, J.E. 1989. Family Ophichthidae. Pp. 254–412 in Böhlke, E.B. (Ed.), *Fishes of the Western North Atlantic*. *Sears Foundation for Marine Research*, **1**(9): 1–655.
- O'Shea, D.T., Hubert, W.A. & Anderson, S.H. 1990. Assemblages of small fish in three habitat types along the Platte River, Nebraska. *Prairie Naturalist*, **22**(3): 145–154.
- Sullivan, K.B. & Lydy, M.L. 1999. Differences in survival functions of mosquitofish (*Gambusia affinis*) and sand shiner (*Notropis hulibundus*) genotypes exposed to pesticides. *Environmental Toxicology and Chemistry*, **18**(5): 906–911.
- Suttkus, R.D. 1985. Identification of the percid, *Ioia vigil* Hay. *Copeia*, **1985**(1): 225–227.

## (2) William J. Poly

Department of Zoology, Southern Illinois University, Carbondale,  
Illinois 62901-6501, U.S.A.

I support the application submitted by Reeve Bailey because nomenclatural stability would be served best by retaining the specific name of *Notropis stramineus* (Cope, 1865) over any less often used senior names. In addition to the major works cited by Prof Bailey that have used the name *N. stramineus*, there are many other local and regional faunal accounts that contain the name. It is my belief that the name has been used hundreds of times in published papers (not to mention theses, dissertations and agency reports). I spent a few days compiling literature from my own library and so far have about 154 references containing the name *stramineus* additional to those cited in the application (the list of publications is held by the Commission Secretariat). These are mostly post-1962, when the burgeoning of publications has taken place, and I consider them to be only a small portion of the published papers containing *stramineus*. In contrast, I found a mere 13 uses of *ludibundus*, all since 1991, additional to those cited in the application and by Gilbert et al. (comment above).

It is unfortunate that, even though we have standardized lists of names in ichthyology, the name *Notropis ludibundus* (Girard, 1856) has been used by some authors. It seems that there is an 'urgency' to begin using names such as *ludibundus* as soon as possible (i.e. to be among the first to do so), but it is wise to wait until the nomenclatural issues are completely resolved before changing the usage of a long standing and commonly used name. This avoids several years of publications in which an alternate name or spelling is in use as well as the more commonly used name or spelling.

## (3) Reeve M. Bailey

Museum of Zoology, The University of Michigan, Ann Arbor,  
Michigan 48109-1079, U.S.A.

The primary thrust of this application is clearly set forth in the Abstract.

The desirability of conserving the name *Notropis stramineus* has been supported by a number of ichthyologists (see BZN 57: 111-112) and further by William Poly (comment (2) above). It is challenged, however, in a statement (comment (1) above) drafted by Dr Carter R. Gilbert and supported by others, at least two of whom have published under the name *N. stramineus* since Mayden & Gilbert (1989) resurrected *N. ludibundus*.

One objection to the maintenance of usage of the name *Notropis stramineus* that Gilbert et al. have raised concerns the unstable nomenclatural history of the species. This is historical. The significant consideration is the notable stability and wide use of the name since 1958, as documented in my application and by Mr Poly (above). When Drs Mayden and Gilbert discovered the applicability of the name *N. ludibundus* to the sand shiner, they contacted me about it. I recommended that they submit a proposal to the Commission to conserve *N. stramineus*, but they